

U.S. Patent Application No. 09/736,820  
Request for Reconsideration dated March 15, 2006  
Reply to Office Action dated December 15, 2005

### **REMARKS/ARGUMENTS**

Reconsideration and continued examination of the above-identified application are respectfully requested. The Examiner's withdrawal of all of the previous rejections except for the rejections over Park et al. in view of Skinner and Park et al. in view of Peralta Anstalt, is acknowledged.

#### **Rejection of claims 1, 2, 4-6, 19, 20, 22, 23, and 27 under 35 U.S.C. §103(a) over Park et al. in view of Skinner**

At page 2 of the Office Action, the Examiner rejected claims 1, 2, 4-6, 19, 20, 22, 23, and 27 under 35 U.S.C. §103(a) as obvious over Park et al. (U.S. Patent No. 5,837,343) in view of Skinner (U.S. Patent No. 4,087,400). The Examiner repeats the rejection made in the Office Action of April 13, 2005, in which the Examiner alleged that Park et al. discloses a floor surface comprising polymeric planks and that Skinner teaches that sections of vinyl flooring are sealed together in a closely abutting relation and wherein the sealing composition is tetrahydrofuran and 5 - 60% of an organic solvent. The Examiner further alleged that it would have been obvious to provide Park et al. with a welding agent that is present on at least one edge of each thermoplastic plank in order to improve the process of joining together sections of the vinyl flooring as taught by Skinner. At page 3 of the present Office Action, the Examiner refers to the arguments "filed" September 27, 2005, however, the amendment was filed July 11, 2005 and resubmitted on October 4, 2005. Correction of the record is requested. Specifically, the Examiner takes the position that the statements at col. 5, lines 47 - 50 of Park et al. that the assembly of segments occurs without the use of nails or glue is not a teaching away from using nails or glue, but rather is merely a preference to

U.S. Patent Application No. 09/736,820  
Request for Reconsideration dated March 15, 2006  
Reply to Office Action dated December 15, 2005

not use nails or glue. The Examiner responds to the argument that Skinner relates to joining flexible vinyl flooring, and therefore has no relevance to joining rigid polymeric flooring planks, by alleging that Skinner does not disclose that the vinyl flooring is flexible and that the present application does not disclose that the polymeric flooring planks are rigid. For the following reasons, this rejection is respectfully traversed.

The Examiner is in error in making this rejection. Applicants' arguments made in the previous responses are incorporated herein. In particular, contrary to what is alleged by the Examiner, Park et al. does not state that its segments could preferably be joined without nails or glue, but rather, Park et al. explicitly states that they are joined without nails or glue. Therefore, Park et al. explicitly teaches away from any other means of bonding between its segments other than its described groove and spline assembly. Moreover, regarding Skinner, persons skilled in the art would view sheet vinyl flooring as being a different area of technology from polymeric flooring planks and that a person skilled in the art of joining polymeric flooring planks would not look to seam sealing compositions of sheet vinyl flooring. The Examiner states that Skinner does not disclose that its vinyl flooring is flexible and the present application does not state that the polymeric flooring planks are rigid. However, contrary to the Examiner's argument that the present application does not disclose rigid flooring planks, the Examiner's attention is directed to page 4, line 22, which incorporates in its entirety U.S. Patent Application Nos. 09/460,928 and 09/630,121. The '928 application has issued into U.S. Patent No. 6,617,009 and clearly discloses rigid planks. Thus, this embodiment is disclosed in the present application. Further, persons skilled in the art would recognize that sheet vinyl flooring is inherently flexible and that polymeric flooring planks are inherently rigid. Applicants would like to point out to the Examiner that the American Heritage

U.S. Patent Application No. 09/736,820  
Request for Reconsideration dated March 15, 2006  
Reply to Office Action dated December 15, 2005

Dictionary defines "sheet" as a "broad" and "thin" material, and defines "plank" as "a piece" that is "cut thicker than a board." Additionally, the Skinner sheet is disclosed as 0.125 to 0.5 mm thick (column 4, lines 2-6).

Contrary to the Examiner's statements and understanding, sheet vinyl flooring is a term understood by those skilled in the art. A simple search of flooring companies will confirm this point. Vinyl sheet or sheet vinyl flooring is a flexible material as shown in the attached installation instructions, which were obtained from various websites. As can be seen, the vinyl sheet flooring is quite flexible, which permits its ability to be laid on the floor. Furthermore, typical vinyl sheet flooring is glued down to the sub-floor and then, as shown in Skinner, the various sheet vinyl flooring is joined at the seams with seam sealing compositions. This is quite different from "planks" as that term is described and used in the claimed invention. Furthermore, it is respectfully pointed out to the Examiner that at col. 4, lines 30-35, installation instructions are provided wherein Skinner states that a "double cut" is used to place the flooring in. A "double cut" is where two ends of the flooring are overlapped and then a cut is made down the middle. Needless to say, if the material was as rigid as the Examiner alleges, this would not be possible. Accordingly, sheet vinyl flooring is a material quite different from the flooring planks used in the claims and, clearly, those skilled in the art would not consider sheet vinyl flooring to be the same as flooring planks.

Moreover, the Examiner's observation is irrelevant to the fact that seam sealing of vinyl flooring is a different field of technology from joining polymeric flooring planks. Moreover, the Examiner still has not shown why there would be any motivation to use the sheet vinyl flooring seam sealing composition to join polymeric flooring planks. It would be recognized that the forces and stresses to which joined polymeric planks are subjected are not the same as the forces and

U.S. Patent Application No. 09/736,820  
Request for Reconsideration dated March 15, 2006  
Reply to Office Action dated December 15, 2005

stresses to which sheet vinyl flooring would be subjected; therefore, the teachings that a seam sealing composition improves the process of joining together sections of sheet vinyl would not teach that the sealing composition would improve the joining of polymeric flooring planks. Accordingly, this rejection should be withdrawn.

**Rejection of claim 3 under 35 U.S.C. §103(a) over Park et al. in view of Peralt Anstalt**

The Examiner repeats the rejection of claim 3 under 35 U.S.C. §103(a) as obvious over Park et al. in view of Peralt Anstalt (GB 1,178,565). The Examiner rejects claim 3 as obvious over Park et al. in view of Peralt Anstalt (GB 1,178,565). The Examiner refers to the Office Action of April 13, 2005, in which the Examiner alleged that Park et al. discloses the floor surface described above and that Peralt Anstalt teaches two polymeric planks with a bonding agent of tetrahydrofuran for connecting two sheets by temporarily dissolving and respectively plasticizing the plastics material so that a connection similar to a welded connection is obtained under pressure (col. 1, lines 25 - 30). At page 3 of the present Office Action, the Examiner takes the position that Peralt Anstalt discloses welding plastic sheets that are bonded by their edges. In response to Applicants' arguments that Peralt Anstalt refers to welding plastic sheets and therefore is non-analogous art, the Examiner alleges that Peralt Anstalt is pertinent because it teaches bonding of plastic sheets at their edges using a welding solvent and that Park et al. teaches bonding two polymeric planks at their edges. For the following reasons, this rejection is respectfully traversed.

The Examiner is in error in making this rejection. Applicants' arguments made in the previous responses are incorporated herein. In particular, the Examiner seems to have confused the differing meanings of "edge" as that term is used in the present application and in Peralt Anstalt.

U.S. Patent Application No. 09/736,820  
Request for Reconsideration dated March 15, 2006  
Reply to Office Action dated December 15, 2005

The present invention relates to thermoplastic planks, and the term "edge" clearly refers to a side surface of the plank, as clearly shown in Example 1 of the application. Peralt Anstalt, on the other hand, relates to joining plastic sheets by overlapping them, and, in this context, the term "edge" refers to an area of the top surface of the sheet near the periphery and not to a side surface. Therefore, despite the use of similar terms, Peralt Anstalt is clearly describing a completely different type of joining which involves overlapping roof tiles. Peralt Anstalt is also non-analogous to the claimed invention and to Park et al. As discussed above, Park et al. explicitly teaches away from any bonding substance, and that this teaching away would include teaching away from any chemical welding agent. Moreover, a person skilled in the art in considering the joining of polymeric flooring planks to form a floor surface covering would not look to methods of joining overlapping plastic sheeting to form roofing panels. Also, it would be recognized that the forces and stresses to which a floor covering is subjected are not the same as the forces and stresses to which overlapping plastic sheet roofs would be subjected; therefore, the teachings of a suitable bonding material and method for joining together overlapping plastic sheets on a roof would not be relevant to joining polymeric flooring planks to form a floor surface covering. Accordingly, this rejection should be withdrawn.

### **CONCLUSION**

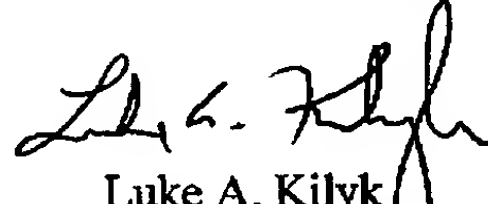
In view of the foregoing remarks, the applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37

U.S. Patent Application No. 09/736,820  
Request for Reconsideration dated March 15, 2006  
Reply to Office Action dated December 15, 2005

C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged  
to said Deposit Account.

Respectfully submitted,



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Attachments: Vinyl Sheet Installation Instructions obtained from various websites (7 pgs.)

## VINYL SHEET INSTALLATION INSTRUCTIONS

### STEP 1 INSPECT AND PREPARE SUBFLOOR

#### IF INSTALLING OVER:

##### Old Vinyl Flooring

#### INSPECT:

Must be non-cushioned backed and firmly bonded. Check for loose vinyl, gapped seams, cuts, tears, rips, or other damage.

#### PREPARE:

- Utility Knife (to remove loose vinyl)
- New Beginning Extra Strength Cleaner (removes dirt and wax build-up)
- S-199 One-Part Embossing Leveler (fills and levels embossing on your old vinyl flooring)
- Smooth Edge Trowel (for applying S-199)
- Sanding Block (use medium grit sandpaper for smoothing rough areas of the embossing leveler)

#### IF INSTALLING OVER:

##### Plywood

#### INSPECT:

If installing a new plywood subfloor, use APA Underlayment Grade. For a new or existing plywood subfloors, check for loose panels, gapped joints, knots, nail holes, or other damage.

#### PREPARE:

- S-184 (for patching or filling textured surfaces)
- Smooth Edge Trowel (for applying S-184)
- Sanding Block (use medium grit sandpaper for smoothing rough areas of the patch)
- S-185 Latex Primer (for a superior bond)
- Short Nap Paint Roller (for applying S-185)

#### IF INSTALLING OVER:

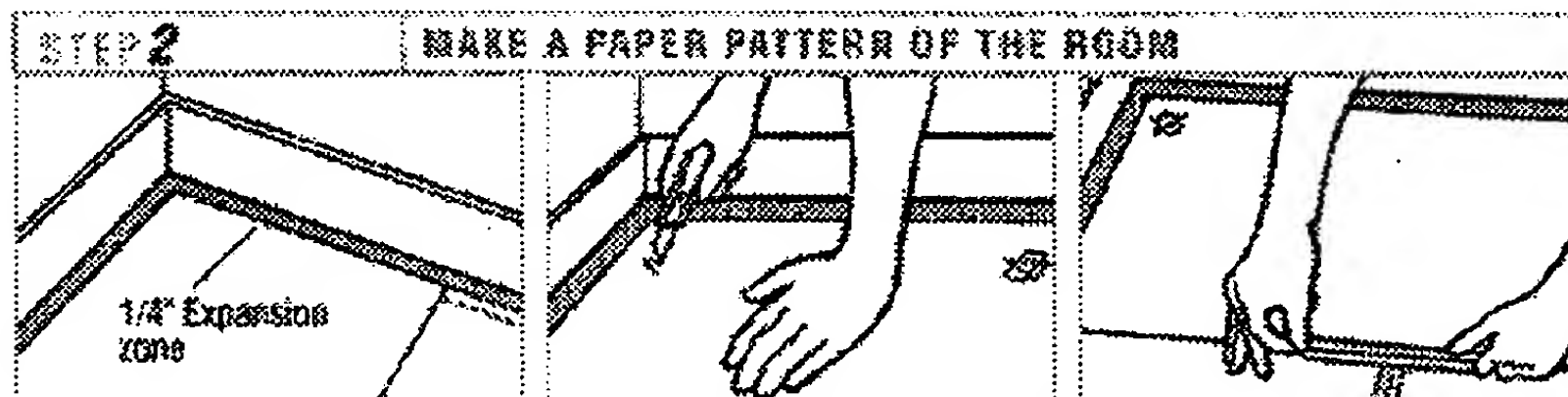
##### Concrete/Ceramics

#### INSPECT:

Must be clean, dry, and dust free. Check for cracks, scaling, levelness, and other damage. If installing over ceramic tile, terrazzo, or marble, insure that the tiles are firmly bonded.

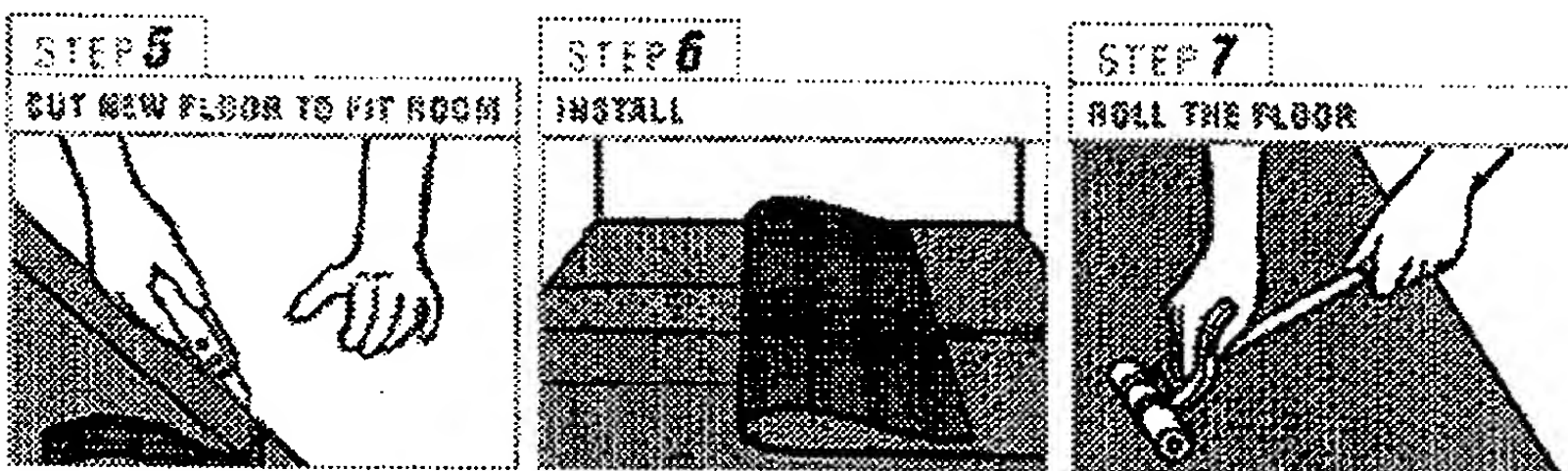
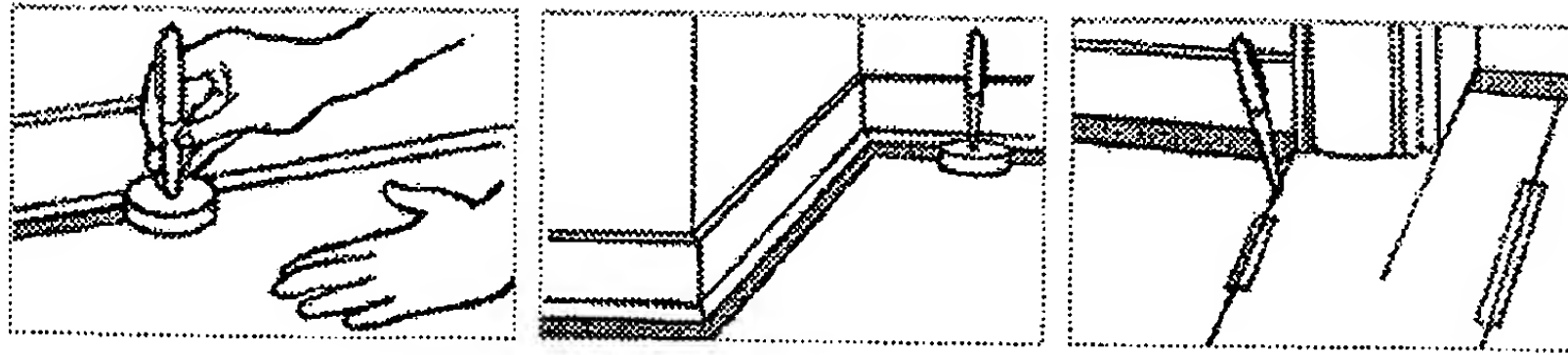
#### PREPARE:

- S-184 (for patching or filling textured surfaces)
- Smooth Edge Trowel (for applying S-184)
- Sanding Block (use medium grit sandpaper for smoothing rough areas of the patch)
- S-185 Latex Primer (for a superior bond)
- Short Nap Paint Roller (for applying S-185)



### STEP 3 TRACE PERIMETER OF ROOM ONTO PATTERN





## Installation Instructions for Vinyl Sheet Flooring

### FINISHING UP & CARE INSTRUCTIONS

#### Finishing

- Remove any excess adhesive from the flooring surface immediately after installation. Lightly dampen a clean, white cloth with mineral spirits, and wipe over the adhesive. Change the area of the cloth frequently as the adhesive is removed.
- When finished installing, roll the floor to make sure flooring is firmly bonded to subfloor.
- Replace baseboard molding.
- Carefully move furniture and appliances back into the room using hardboard panels to protect new floor.

#### Care Instructions

- Sweep or vacuum regularly.
- Wash regularly with a no-rinse floor cleaner such as Armstrong Once 'n Done Floor Cleaner.
- Do not use soap-based detergents, abrasive cleansers, or "mop and shine" products.



They can leave a film on your floor.

- \* To restore the shine, polish with a liquid floor polish such as Armstrong Shinekeeper Floor Polish. Do not use paste wax or solvent-based polishes.
- ◆ Use floor protectors on chair and table legs to distribute furniture weight and protect against indentation damage.
- \* Use natural-fiber mats at outside doorways to reduce tracked-in dirt, stains and moisture. Do not use mats with rubber backing which can cause permanent discoloration.

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## Vinyl Floor Construction

Homeowners are offered two types of residential sheet vinyl flooring. The older construction type is called *inlaid construction* and the newer, more common construction type is called *rotogravure construction*.

### Inlaid Vinyl



The inlaid process uses solid colored vinyl chips that are laid on top of a carrier sheet and then bonded together with heat and pressure. The inlaid process has been around for years and generally results in geometric type patterns and designs. Residential inlaid floors have a clear wearlayer placed over the top of the chips to make the floor's finish easier to maintain. It is important to note that you are not walking directly on the inlaid chips, instead you are walking on the clear wearlayer that was placed on top of the chips. The appearance of your inlaid floor is dependent on how long the clear finish will last.

### Rotogravure Vinyl



The rotogravure printing process is the most commonly used method for making residential vinyl floors and offers unlimited possibilities in pattern and design. This involves a print cylinder that spins around while the vinyl's core layer (called the gel coat) passes underneath. The cylinder systematically prints various colored ink dyes to create the pattern. After the print dyes are set a clear wearlayer is applied to the surface. Like the inlaid the appearance retention of a rotogravure floor is dependent on the durability of the clear wearlayer.

How



Clear Instructions on How To Do (just about) Everything

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# How to Install a Sheet Vinyl Floor

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Sheet vinyl flooring is a practical, durable and often attractive choice for high-traffic areas such as kitchens and baths. It's also not a big deal to install yourself, if you've got the time and the patience. Before you get started, follow the instructions in the related eHow, "Prepare to Install a Sheet Vinyl Floor."

## Cutting the Vinyl

### Steps:

1. Roll out the sheet vinyl, face up, in a wide, open area.
2. Orient the vinyl in the same direction as the space it's going to cover.
3. Using a tape measure and ruler, mark the floor's dimensions on the sheet vinyl with a nonpermanent felt-tip marker. It's a good idea to leave an inch or two extra on your measurements and then trim to fit exactly once the vinyl is in place.
4. Double-check your measurements.
5. Cut the sheet vinyl to the shape of the floor using a straightedge and a flooring knife. Take your time on this phase. Small mistakes along the edges can be covered with trim, but a major blunder can be costly.
6. Wipe off the felt pen markings with a wet sponge.
7. Re-roll the vinyl, making sure the back side is clean as you roll.
8. Carry the vinyl to the place you're going to lay the new floor.

### Tips:

- Keep a few large scraps for any future repairs.

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- Flooring knives are very sharp. Avoid cutting toward yourself, and watch your fingers.

**Gluing Down the Sheet Vinyl****🔢 Steps:**

1. Sweep or vacuum the floor, clearing it of any dirt and small debris.
2. Unroll the sheet vinyl and dry fit it to the floor.
3. Do any trimming (carefully!) that needs to be done to get a perfect fit. Once the vinyl lies smooth and flat, you're ready to glue.
4. Roll one side of the vinyl up from the outside edge to the center point. Leave the other side flat on the floor. (Dealing with a really odd-shaped room may require a more complex strategy. It will take a little more time and careful fitting and trimming, but the process remains the same.)
5. Pry open a 1-gallon can of floor epoxy with a screwdriver.
6. Use a notched trowel to spread a line of epoxy about a foot wide all along the floor next to the rolled flooring.
7. Work from the center toward the outside edge of the room.
8. Unroll the vinyl slowly, pressing it into the adhesive. (You can use a kitchen rolling pin to help seat it well and to get all the air bubbles out, or you can rent a roller.)
9. Spread another foot-wide strip of epoxy on the floor.
10. Unroll the vinyl farther and press into the epoxy.
11. Continue applying epoxy and unrolling vinyl until this half of the floor is covered.
12. Wash epoxy off exposed surfaces with hot water before it dries.
13. Repeat the process on the other side of the room.

**✳ Tips:**

- Make sure you work all air bubbles out from under the flooring. The easiest way to avoid them is not to glue down too large an area at once.
- Try to avoid seams (places where you've had to fit two pieces of sheet vinyl together), but if you can't avoid it, plan for a seam to be in an area that gets light traffic so it won't be noticed much.

**⚠ Warnings:**

- Open the windows when working with epoxy. Make sure you have plenty of ventilation.

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- ♦ Take your time on trimming to avoid mistakes.

### Finishing the Floor

#### Steps:

1. Walk the floor in a pair of socks once it's all glued down. This is an easy way to feel for any air bubbles trapped underneath. Roll them out toward the closest edge.
2. Nail or glue any trim around the base of the wall.
3. Screw down thresholds.
4. Check one more time for any exposed adhesive before it dries.
5. Allow adhesive to dry according to manufacturer's specifications before allowing traffic on the floor.

#### Tips:

- ♦ Care for your floor according to the manufacturer's directions.

#### Who Can Help You With This:

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#### Tips from eHow Users:

- ♦ **Preliminary pattern by eHow Friend**

I found that I was able to cut the linoleum accurately by using butcher paper as a pattern. I laid it down, taped many pieces together, and was able to form a pattern that I superimposed on to my linoleum instead of taking measurements.

Rate this tip:     

- ♦ **Preparation of the subfloor by eHow Friend**

Fastening a 1/4 inch multiply underlayment over OSB will help provide a smooth surface for the vinyl flooring and often a requirement from manufacturers.

Be sure to use floor leveler to cover seams and fastener heads. Vinyl flooring has become more transparent and you want to hide any imperfections underneath.

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